

**REMARKS**

This is in response to an Office action mailed on February 19, 2003. This response is accompanied by a petition for a two-month extension of time for response.

Claim 54 is cancelled by this amendment. Therefore, the objection to claim 54 is considered moot.

Claim 10 is amended to recite that the "computer generates a quality measurement in response to said second image information said quality measurement being indicative of a variation between said second image information and predetermined reference information and which quality measurement is compared to a threshold." Support for the amendment to claim 10 will be found in the disclosure of the specification at page 8, lines 22-30. Thus, no new matter is raised by this amendment. Similar language is incorporated into new claims 60 to 64 and with this as an exception new claim 60 is largely dependent claim 4 placed in independent form, new claim 61 is largely dependent claim 6 placed in independent form, new claim 62 is largely dependent claim 9 placed in independent form, new claim 63 is largely dependent claim 25 placed in independent form and new claim 64 is largely dependent claim 41 placed in independent form.

The disclosure of the specification is amended to correct obvious typographical errors and such amendments do not add new matter.

Claim 34 is amended to recite "wherein said corresponding control image is used to identify the print job of the printed image". Support for this amendment will be found in the disclosure of the specification at page 9, lines 2-7. The disclosure of the specification at page 12, lines 25-34 is amended to properly recite the definition of the term "digital reference" consistent with the definition stated on page 3, lines 4-5. No new matter is introduced by these amendments.

**Rejection Under 35 U.S.C. §102(e) and §103(a)**

U.S. Patent No. 6,337,922 of Kumada (the "Kumada '922 patent") was cited against claims 1-6, 10, 15-18, 55-59 under 35 U.S.C. §102(e). Additionally, the Kumada '922 patent was cited as a primary reference under 35 U.S.C. §103(a) as rendering obvious various claims in view of U.S. Patent 6,327,047 of Motamed (the "Motamed '047 patent"), US 6,404,511 of Lin et al. (the "Lin et al. '511 patent"), US 6,404,517 of

Chao (the “Chao ‘517 patent”), and US 5,537,516 of Sherman et al. (the “Sherman ‘516 patent”).

The Kumada ‘922 patent discloses a printer calibration system utilizing a network port and a printing device connected to the network port. According to the Kumada ‘922 patent, a densitometer is used for “high accuracy” calibration and a scanner is used for “ordinary accuracy” calibration. In the process of the Kumada ‘922 patent a user must elect “ordinary accuracy” or “high accuracy” prior to the step which reads the color patch because the user’s election dictates whether the scanner must read the color patch or the densitometer must read the color patch. See column 13, lines 1-15 and column 17 lines 19-35. Thus, in the Kumada ‘922 patent the selection of calibration precision (termed “accuracy” in the Kumada ‘922 patent) corresponds to whether a scanner reads the color patch or a densitometer reads the color patch. In the Kumada ‘922 patent, the choice of the measurement device is essential to the degree of precision of the calibration. Moreover, the determination of whether the calibration happens is made after a quality determination is made; that is, after a user determines the desired level of calibration precision.

By way of background, the Office is invited to note the disclosure of the specification which describes an important aspect of print quality verification in remote printing processes at page 1, lines 8-24:

Printing systems typically do not provide a way of automatically verifying the color fidelity of the printed images. Manual verification is often performed using a proofing strip containing a test pattern that is compared to a reference. In modern printing systems...the color quality provided to the end user is important as an element in determining adequate performance under an agreement...[D]ue to numerous color output technologies and formats, and different output device characteristics, the color reproduction of the original cannot be guaranteed. This presents a significant barrier to the utilization of digital image transmission as a mechanism for providing image source information for printing at another location.

According to the foregoing passages of the instant application print verification from a remote location is a barrier to using digital image transmission in the printing industry. The instant invention provides remote access to print quality information which avoids the need for print verification at the printing location.

In contrast to Kumada, Claim 10 of the instant invention, recites “wherein said computer generates a quality measurement in response to said second image information said quality measurement being indicative of a variation between said second image information and predetermined reference information and which quality measurement is compared to a threshold”. Thus, it is after the measuring device generates second image information that a quality determination is made which might then lead to calibration.

In view of the foregoing, independent claims 10, 60-61, and 63-64 and the claims dependent thereon are not anticipated by the Kumada ‘922 patent calibration process.

Since the Kumada ‘922 patent relates to a materially different process it fails to anticipate independent claims 10, 60-61, and 63-64 or form the basis for a proper prima facie obviousness rejection of any claims of the present application in combination with the secondary references cited in the Office action.

In Part 5 of the Office action, claims 7-9 were rejected as being obvious over the Kumada ‘922 patent in view of the Motamed ‘047 patent.

Claim 9 is rewritten as independent claim 62. Claims 7-8 are cancelled. Claim 62 recites:

A remote printing system, comprising:

a network port;

a printing device connected to said network port, wherein said printing device receives first image information from said network port and generates a printed image and a corresponding control image, said control image comprising an arrangement of predetermined colors which predetermined colors provide identification information;

a measuring device connected to said network port, wherein said measuring device generates second image information from said control image;

wherein the second image information is indicative of a variation between said second image information and predetermined reference information and the second image information is compared to a threshold to generate print quality information and wherein said second image information is used to calibrate said printing device [emphasis added].

The Kumada ‘922 patent is relied upon for disclosing a remote printing system wherein an arrangement of predetermined colors provides identification information. There is no explanation in the Office action as to how the Motamed ‘047 patent in combination with the Kumada ‘922 patent renders the claimed invention prima

facie obvious. Rejection of a claim during examination requires that the reasons for such rejection be given to the applicant to the extent that further prosecution can be evaluated. The Office has a duty under 35 U.S.C. §132 and 37 C.F.R. Rule 1.106 to cite the best references available which relate to the claimed invention and explain clearly the pertinence of each reference to each claim specified. In this regard, the particular part of the Motamed '047 patent relied upon has not been designated and the reasons for finding the Motamed '047 patent pertinent to the claimed subject matter have not been stated. Should the rejection of claim 62 be repeated in any subsequent Office action, a full explanation of the grounds of rejection based on the Motamed '047 patent is requested.

Column 5, lines 4-15 of Kumada '922 is pointed to in the Office action for disclosing "the remote printing system wherein said arrangement of predetermined colors provides identification information". However, the teaching of the Kumada '922 patent at column 5, lines 4-15 relates to color management modules. While a color management module may have a set of predetermined colors useful for generating a color sequence, a color management module does not "comprise an arrangement of predetermined colors which predetermined colors provide identification information". Furthermore, the Motamed '047 patent relates to calibration processes and fails to disclose a control image comprising an arrangement of predetermined colors which predetermined colors provide identification information.

In Part 6 of the Office action, claims 11-14 are rejected as being obvious over the Kumada '922 patent in view of the Lin et al. '511 patent.

Since the Kumada '922 patent relates to a calibration process which is materially different from the process of claim 10 (from which claims 11-14 depend), the Kumada '922 patent fails to form the basis for a proper prima facie obviousness rejection against claims 11-14 of the present application in combination with the Lin et al. patent. The Lin et al. patent relates to a technique for calibrating non-reference printers to a reference printer in a network system and nothing in the Lin et al. patent suggests modifying the teaching of the Kumada '922 patent to arrive at the invention of claims 11-14.

In Part 7 of the Office action, claims 19-30 and 33-54 are rejected as being obvious over the Kumada '922 patent in view of the Chao '517 patent. Claims 19-24, 33, 39-41 and claims 51-54 are cancelled. Dependent claim 25 is represented in independent form as claim 63. Dependent claim 41 is represented as independent claim 64.

Independent claim 34 recites a remote printing system, comprising:

a network port;

a printing device connected to said network port, wherein said printing device receives first image information from said network port and generates a printed image and a corresponding control image;

a measuring device connected to said network port, wherein said measuring device generates second image information from said control image;

wherein said corresponding control image is used to identify the print job of the printed image [emphasis added].

The instant invention avoids the need for the step of manual or digital (e.g. by way of adding a bar code) print job identification because the print job can be identified from the control image.

The Office action states at page 17:

Although Kumada does not disclose identifying a print job, Chao discloses a system for remote printing comprising an image server computer adapted for connection to a remote printing station... wherein said image server computer is configured to... identifying a print job associated with said digital image source information from said received digital image measurement information (col. 7, lines 48-col. 8, lines 1-13).

Thus, as acknowledged in the Office action, Kumada does not teach a corresponding control image that is used to identify the printed image. The Chao '517 patent relates to a series of registration marks printed on a color patch sheet or on a series of color patch sheets used for calibrating a color image reproduction system. Accordingly, there is nothing in either Kumada '922 or Chao '517 that would have suggested prima facie obviousness of combining the references to arrive at the invention of claim 34 and the claims dependent thereon to the person of ordinary skill in the art.

Independent claim 45 relates to a system for remote printing comprising an image server computer adapted for connection to a remote printing station, said server computer having a memory, a processor, and a network port, wherein said image server computer is configured to perform the steps of:

transmitting print job instructions including digital image source information over said network port for printing an image at the remote printing station, said digital image source information including an associated control image that incorporates identification information;

receiving digital image measurement information from the remote printing station corresponding to measurements of the control image; and,

identifying a print job associated with said digital image source information from said received digital image measurement information [emphasis added].

In rejecting claim 45, the Office action references teachings of the Kumada '922 patent by column and line number for disclosing identification information. How the Kumada '922 patent at column 16, lines 24 to column 17 lines 1-10 teaches digital image source information including an associated control image that incorporates identification information is unclear. Should this finding be relied on in a subsequent Office action, clarification is requested including a specific explanation as to how the teaching in the referenced section describing the network terminal components, the color management module, the user interface and/or the selection of calibration accuracy shown in the flow diagram of Figs. 34 and 35 disclose said digital image source information including an associated control image that incorporates identification information. It is noted that no specific disclosure of Kumada '922 is pointed to for teaching "identifying a print job associated with said digital image source information from said received digital image measurement information". Moreover, in the Office action it is expressly acknowledged that Kumada '922 does not disclose identifying a print job.

Thus, the Chao '517 patent is relied on as a secondary reference for disclosing digital image source information including an associated control image that incorporates identification information and identifying a print job associated with the digital image source information. However, the registration marks taught in the Chao '517 patent are for calibrating a color image reproduction system not for identifying a print job associated with the digital source information. Identifying a print job is important for remote printing wherein the printing station is remote from the image server computer. The information of the patch sheet(s) for calibrating the printer in the disclosure of the Chao '517 patent does not teach or suggest identifying a print job associated with the digital image source information. Accordingly, there is nothing in either Kumada '922 or Chao '517 that would have suggested prima facie obviousness of combining the references to arrive at the invention of claim 45 and the claims dependent thereon to the person of ordinary skill in the art.

Independent claims 63 and 64 in addition to the points of distinction between Kumada '922 and Chao '517, as discussed above, further comprise verifying print quality

which is not taught or suggested by Kumada '922 or Chao '517. The Office action fails to explain how the Chao '517 patent is combined with Kumada to make a case of prima facie obviousness of claims 63 and 64. Rejection of a claim during examination requires that the reasons for such rejection be given to the applicant to the extent that further prosecution can be evaluated. The Office has a duty under 35 U.S.C. §132 and 37 C.F.R. Rule 1.106 to cite the best references available which relate to the claimed invention and explain clearly the pertinence of each reference to each claim specified. In this regard, the particular disclosure of the Chao '517 patent relied upon has not been designated and the reasons for finding the Chao '517 patent pertinent to the claimed subject matter have not been stated. Should the rejection of claims 63 and 64 be repeated in any subsequent Office action, a full explanation of the grounds of rejection based on the Chao '517 patent is requested.

Since as discussed above, the independent claims would not have been obvious to the person of ordinary skill in the art, the claims dependent thereon would also not have been obvious.

In Part 8 of the Office action, claims 31-32 are rejected as being obvious over the Kumada '922 patent in view of the Sherman '516 patent. Claims 31-32 have been cancelled rendering the rejection of claims 31-32 moot.

In view of the foregoing, reconsideration and withdrawal of the rejection and allowance of the instant application is respectfully requested. The examiner is invited to telephone the undersigned to discuss resolution of any issues raised by this amendment or remaining in this patent application, which discussion may expedite prosecution.

Respectfully submitted,



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Dated: 18 July 2003